



**6712-01**

**FEDERAL COMMUNICATIONS COMMISSION**

**47 CFR Part 90**

**[WP Docket No. 07-100; PS Docket No. 06-229; WT Docket No. 06-150; FCC 12-61]**

**4.9 GHz Band**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** The Commission adopts rule changes to three aspects of the technical provisions of part 90 of the Commission's rules pertaining to public safety operations. All of these changes are designed to correct typographical or other ministerial errors in these provisions. First, the Commission reinstates a rule provision that exempted 4940-4990 MHz (4.9 GHz) band applicants from certified frequency coordination. Next, the Commission corrects the bandwidth of Channel 14 in the 4.9 GHz band plan from five megahertz to one megahertz, and amends the band plan to list the center frequencies for each channel aggregation permitted in the rules. Finally, the Commission corrects minor errors in the Public Safety Pool Frequency Table and associated list of limitations. All of these changes are designed to correct typographical or other ministerial errors in these provisions. These changes affecting the 4.9 GHz band in particular will improve spectrum efficiency and clarify the rules so as to encourage greater use of the 4.9 GHz band.

**DATES:** Effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**FOR FURTHER INFORMATION CONTACT:** Thomas Eng, Policy and Licensing Division, Public Safety and Homeland Security Bureau, Federal Communications Commission, 445 12th

Street, SW., Washington, DC 20554, at (202) 418-0019, TTY (202) 418-7233, or via e-mail at [Thomas.Eng@fcc.gov](mailto:Thomas.Eng@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Fourth Report and Order in WP Docket No. 07-100; PS Docket No. 06-229; WT Docket No. 06-150; adopted and released on June 13, 2012. The complete text of this document is available for inspection and copying during normal business hours in the FCC Reference Information Center, Portals II, 445 12<sup>th</sup> Street, SW, Room CY-A257, Washington, DC 20554. This document may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., in person at 445 12<sup>th</sup> Street, SW, Room CY-B402, Washington, DC 20554, via telephone at (202) 488-5300, via facsimile at (202) 488-5563, or via email at [FCC@BCPIWEB.com](mailto:FCC@BCPIWEB.com).

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## **INTRODUCTION AND BACKGROUND**

In this Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking (Fourth Report and Order and Fifth Further Notice, respectively), we adopt rule changes to Part 90 of the Commission's rules pertaining to public safety operations in the 4940-4990 MHz (4.9 GHz) band to clarify, as well as correct certain provisions in the technical rules and several entries in the Public Safety Pool Frequency Table and associated list of limitations. In April 2009, the Commission released the Report and Order and Further Notice of Proposed Rulemaking (Report and Order and Further Notice, respectively) to "encourag[e] public safety users to more fully utilize the 4.9 GHz band" for broadband communications. In the Report and

Order, the Commission amended part 90 of the Commission's rules to permit licensing in the 4.9 GHz band, on a primary basis, of permanent fixed links used to deliver broadband services. In the Further Notice, the Commission proposed (1) to reinstate a provision that had previously exempted 4.9 GHz band applicants from certified frequency coordination, (2) to require instead that applicants for 4.9 GHz primary permanent fixed stations complete the formalized licensee-to-licensee coordination process established in part 101 for fixed microwave stations, (3) to correct an error in the band plan for the 4.9 GHz band and clarify how channels may be aggregated, and (4) to correct additional errors in the Public Safety Pool Frequency Table and associated list of limitations.

The Commission received five comments and two reply comments in response to the Further Notice. None of the commenters raised any question about these proposals, with the exception of the proposed licensee-to-licensee coordination process, for which a majority of commenters proposed database and registration approaches as alternatives. By this Fourth Report and Order, we adopt the proposals from the Further Notice except for the licensee-to-licensee coordination process. In order to permit further comment on proposals for coordination, we further explore 4.9 GHz coordination in the Fifth Further Notice.

#### **FOURTH REPORT AND ORDER**

In this Fourth Report and Order, we adopt rule changes to three aspects of the technical provisions of part 90 of the Commission's rules pertaining to public safety operations. All of these changes are designed to correct typographical or other ministerial errors in these provisions. First, we reinstate a rule provision, formerly codified at § 90.175(j)(17) of the Commission's rules but inadvertently deleted in 2004, that exempted 4.9 GHz band applicants from certified frequency coordination. Next, we correct the bandwidth of Channel 14 in the 4.9

GHz band plan from five megahertz to one megahertz, and amend the band plan to list the center frequencies for each channel aggregation permitted in the rules. Finally, we correct minor errors in the Public Safety Pool Frequency Table and associated list of limitations. These changes will improve spectrum efficiency and clarify provisions of the rules so as to encourage greater use of the 4.9 GHz band. Their costs are negligible, because they would impose no apparent investment or expenditure requirements on any affected entities to achieve compliance.

#### **4.9 GHz General Exemption from Certified Frequency Coordination**

In the Further Notice, the Commission sought comment on its proposal to amend § 90.175(j) of the Commission's rules to restore an exemption for applications for 4.9 GHz band frequencies from certified frequency coordination requirements. The rationale for this exemption had been that all of these frequencies are subject to shared use and thus already require cooperation and coordination under the Commission's rules. The Commission tentatively concluded that an unrelated rulemaking had overwritten this exemption in 2004 by ministerial error.

Harris Corporation (Harris) and the National Public Safety Telecommunications Council (NPSTC) filed comments in support of restoring the exemption. Harris states that “[c]ertification of coordination is unnecessary given local government's interest in maximizing use and avoiding interference among its various public safety agencies.” Harris further notes that “as more public safety communications planning (particularly with regard to interoperable communications like that envisioned for the 4.9 GHz band) is done at the state level, there is inherently more state and local-government coordination amongst public safety agencies.” As the Commission observed in the Further Notice, the omission has been in effect for a substantial period of time, and some entities may be operating under the assumption that formal coordination from a certified

frequency coordinator is required for 4.9 GHz applications. Given the inadvertent nature of the deletion of this provision from the rules, and the lack of comments objecting to its reinstatement, we reinstate the provision exempting 4.9 GHz band applicants from certified frequency coordination requirements. For the reasons identified by Harris, clarifying our existing rule has clear benefits, and we do not currently believe that the benefits associated with unintended certified frequency coordination procedures outweigh their costs to public safety entities. Notwithstanding the exemption from certified frequency coordination requirements, however, we continue to believe, as we noted in the Further Notice, that “additional measures are required to minimize the potential for interference.” Accordingly, we explore possible additional coordination requirements in the Fifth Further Notice, including those advanced by commenters in response to the Further Notice.

#### **4.9 GHz Band Plan Correction and Clarification**

The Commission also sought comment on a proposal to correct the bandwidth for channel number 14 in § 90.1213 of the Commission’s rules from five megahertz to one megahertz. The original designation of five megahertz bandwidth to channel 14 in the Commission’s rules appears to have been a ministerial error, as it renders the band plan asymmetrical and is the only channel in the band plan that has bandwidth overlap with the adjacent channels. In the Further Notice, the Commission noted that this correction would eliminate bandwidth overlap with adjacent channels, improve spectrum efficiency, restore symmetry to the band plan, and reflect the correct allocation between one-megahertz and five-megahertz channels that the Commission had actually specified in the 4.9 GHz Third Report and Order. The Commission further proposed to grandfather existing licensees to minimize the effect of this clarification on existing operations. Also, for the purpose of clarifying channel

centers for various channel aggregations, the Commission sought comment on a proposal to amend the table in § 90.1213 to list the center frequencies that should be requested on applications, for every possible channel aggregation permitted in the rules. NPSTC expressed support for this proposal, and no parties opposed it.

Because the Commission's proposed clarification for § 90.1213 would correct a discrepancy in the codification of the rule, and the amended table will help 4.9 GHz applicants specify on their applications the correct center frequency for any given channel aggregation as permitted in the rules, we adopt these two changes to the 4.9 GHz band plan. We grandfather any existing licensees that are authorized for greater than one megahertz bandwidth on channel 14 or for non-standard center frequencies. This will relieve existing licensees from burdens and costs that would be required to comply with these changes. Since the 4.9 GHz band is lightly used today relative to other public safety bands, we do not believe that grandfathering will cause significant problems, which could include cases of mutual bandwidth overlap interference between existing licensees on channel 14 with five megahertz bandwidth and licensees on adjacent channels.

### **Public Safety Pool Corrections**

The Commission also sought comment on a proposal to implement three amendments to correct ministerial errors in the Public Safety Pool Frequency Table and associated list of limitations, each of which would clarify our rules and eliminate the potential for confusion. As none of these three amendments was opposed, we thus adopt each of them. None of the changes will restrict or limit licensee operation beyond what is currently authorized by our rules, and thus we find no need to grandfather incumbent licensees from the effect of any of them.

First, in the § 90.20(d)(66)(i) table of frequency pairs, the Commission proposed to correct the mobile-only frequency for Channel MED-4 from 463.075 MHz to 468.075 MHz. We confirm our tentative conclusion that the current rule reflects a typographical error. The error is evidenced by the absence of any rule change to explain it and the fact that all other mobile only frequencies in this table are in the 468 MHz range while the listed frequency at issue here (463.075 MHz) already appears in the “Frequencies base and mobile (megahertz)” column of the table.

Second, in the § 90.20(c)(3) table of Public Safety Pool frequencies, the Commission proposed to replace limitation 38 with limitation 10 on nine medical service frequencies. In 2005, the Commission issued an order that, inter alia, replaced limitation 38 with limitation 10 in the Public Safety Pool Frequency Table because the two limitations were identical. Today, limitation 38 is “reserved” and thus devoid of any actual regulation, but the Commission never has completed the limitation replacement in the table of frequencies. Today’s action will correct this oversight.

Third, the Commission proposed to amend § 90.20(c)(3) by replacing the text in the limitation column “O=’xl’≤72” for the 1427 to 1432 MHz band with the numeral “72.” As explained in the Further Notice, this correction will clarify our intention to apply limitation 72 to this band.

After further scrutiny of the Public Safety Pool Frequency Table, we identified another typographical error in the table not previously identified in the Further Notice. In the original 2007 Notice of Proposed Rulemaking and Order in WP Docket No. 07-100, the Commission made “certain minor editorial amendments to part 90 to correct errors or omissions of publication, eliminate duplicative language, or conform language among rule sections.” Among

these changes, the Commission deleted “obsolete references to § 90.20(d)(60) and (61).” However, when the Commission deleted limitations 60 and 61 for frequencies 453.03125 and 453.04375 MHz in the Public Safety Pool Frequency Table, the Commission also changed limitation number 59 to 49 on these frequencies without explanation. These additional changes were the result of typographical errors. Limitation 49 states that “[t]his frequency may be assigned only for forest firefighting and conservation activities in accordance with the provisions of § 90.265,” but frequencies 453.03125 and 453.04375 MHz do not appear in that section. In contrast, limitation 59 states that “[t]he continuous carrier mode of operation may be used for telemetry transmission on this frequency.” The telemetry focus of limitation 59 is consistent with limitation 62, which also applies to these frequencies. We take this opportunity to correct these errors and change limitation number 49 back to 59 on these frequencies. Because we are merely correcting a typographical error to restore the original language of the rule, we find for good cause that prior notice and comment on the correction are unnecessary.

## **PROCEDURAL MATTERS**

### **Regulatory Flexibility Analysis**

As required by the Regulatory Flexibility Act of 1980, see 5 U.S.C. 603, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) and Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The FRFA is set forth in Appendix C and the IRFA is set forth in Appendix E of the Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking. The Commission’s Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the Fourth Report and Order and Fifth Further Notice of Proposed



Rulemaking, including this FRFA and IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). See 5 U.S.C. 603(a).

### **Paperwork Reduction Act Analysis**

This Fourth Report and Order does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Pub. L. 104-13. In addition, therefore, the Fourth Report and Order does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Pub. L. 107-198, see 44 U.S.C. 3506(c)(4).

### **Congressional Review Act**

The Commission will send a copy of the Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking to Congress and the Government Accountability Office pursuant to the Congressional Review Act (“CRA”), see 5 U.S.C. 801(a)(1)(A).

### **ORDERING CLAUSES**

Accordingly, WE ORDER, pursuant to sections 1, 4(i), 301, 302, 303, 316, and 403 of the Communications Act of 1934, 47 U.S.C. 151, 154(i), 301, 302, 303, 316, and 403, that this Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking is HEREBY ADOPTED.

WE FURTHER ORDER and AMEND part 90 of the Commission’s rules as specified in Appendix B, effective thirty days after publication of the Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking in the Federal Register.

WE FURTHER ORDER that the Commission’s Consumer and Governmental Affairs Bureau, Reference Center, SHALL SEND a copy of this Fourth Report and Order and Fifth

Further Notice of Proposed Rulemaking, including the Final and Initial Regulatory Flexibility Analyses, to the Chief Counsel for Advocacy of the Small Business Administration.

**List of Subjects in 47 CFR Part 90**

Communications equipment; Radio

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary.

## Final rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 90 as follows:

### PART 90 – PRIVATE LAND MOBILE RADIO SERVICES

1. The authority citation for part 90 continues to read as follows:

AUTHORITY: Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), and 332(c)(7).

2. Section 90.20 is amended as follows:

- a. In paragraph (c)(3), Public Safety Pool Frequency Table, revise entries “453.03125,” “453.04375,” “462.950,” “467.950,” “467.95625,” “467.9625,” “467.96875,” “467.975,” “467.98125,” “467.9875,” “467.99375” and “1,427 to 1,432”;
- b. . In paragraph (d)(66)(i), revise entry “463.075”.

The revisions read as follows:

#### **§ 90.20 Public Safety Pool.**

\* \* \* \* \*

(c) \* \* \*

(3) \* \* \*

#### PUBLIC SAFETY POOL FREQUENCY TABLE

Frequency or band	Class of station(s)	Limitations	Coordinator
* *	* *	* *	*
Megahertz			
* *	* *	* *	*

453.03125	Base or mobile	44, 59, 62, 84.	PM
* *	* *	* *	*
453.04375 .....	.....do .....	44, 59, 62, 84.	PM
* *	* *	* *	*
462.950 .....	.....do .....	10, 65 .....	PM
* *	* *	* *	*
467.950 .....	.....do .....	10, 65 .....	PM
467.95625 .....	.....do .....	10, 44, 65	PM
467.9625 .....	.....do .....	10, 27, 65	PM
467.96875 .....	.....do .....	10, 44, 65	PM
467.975 .....	.....do .....	10, 65 .....	PM
467.98125 .....	.....do .....	10, 44, 65	PM
467.9875 .....	.....do .....	10, 27, 65	PM
467.99375 .....	.....do .....	10, 44, 65	PM
* *	* *	* *	*
1,427 to 1,432	Base, mobile or operational fixed.	72 .....	
* *	* *	* *	*

\* \* \* \* \*

(d) \* \* \*

(66) \* \* \*

(i) \* \* \*

Frequencies base and mobile (megahertz)	Mobile only (MHz)	Channel name
* * *	* * *	*
463.075 .....	468.075	MED-4
* * *	* * *	*

\* \* \* \* \*

3. Section 90.175 is amended by adding paragraph (j)(22) to read as follows:

**§ 90.175 Frequency coordinator requirements.**

\* \* \* \* \*

(j) \* \* \*

(22) Applications for frequencies in the 4940-4990 MHz band. *See* § 90.1209 of this chapter for further information.

4. Section 90.1213 is revised to read as follows:

**§ 90.1213 Band plan.**

(a) The following channel center frequencies are permitted to be aggregated for channel bandwidths of 5, 10, 15 or 20 MHz as described in paragraph (b) of this section. Channel numbers 1 through 5 and 14 through 18 are 1 MHz bandwidth channels, and channel numbers 6 through 13 are 5 MHz bandwidth channels.

Center Frequency (MHz)	Bandwidth (MHz)	Channel Nos.

4940.5	1	1
4941.5	1	2
4942.5	1	3
4943.5	1	4
4944.5	1	5
4947.5	5	6
4952.5	5	7
4957.5	5	8
4962.5	5	9
4967.5	5	10
4972.5	5	11
4977.5	5	12
4982.5	5	13
4985.5	1	14
4986.5	1	15
4987.5	1	16
4988.5	1	17
4989.5	1	18

(b) The following tables list center frequencies to be licensed for aggregated channels only. A license may contain any combination of bandwidths from aggregated channels provided that the bandwidths do not overlap. The bandwidth edges (lower and upper frequencies) are provided to aid in planning.

(1) 5 MHz bandwidth aggregation:

<b>Center Frequency (MHz)</b>	<b>Channel Nos. Employed</b>	<b>Lower Frequency (MHz)</b>	<b>Upper Frequency (MHz)</b>
4942.5	1 to 5*	4940	4945
4947.5	6	4945	4950
4952.5	7	4950	4955
4957.5	8	4955	4960
4962.5	9	4960	4965
4967.5	10	4965	4970
4972.5	11	4970	4975
4977.5	12	4975	4980
4982.5	13	4980	4985
4987.5	14 to 18*	4985	4990

\*Licensees should avoid using these channels in aggregations unless all other channels are blocked.

(2) 10 MHz bandwidth aggregation:

<b>Center Frequency (MHz)</b>	<b>Channel Nos. Employed</b>	<b>Lower Frequency (MHz)</b>	<b>Upper Frequency (MHz)</b>
4945	1 to 6*	4940	4950
4950	6 & 7	4945	4955
4955	7 & 8	4950	4960

4960	8 & 9	4955	4965
4965	9 & 10	4960	4970
4970	10 & 11	4965	4975
4975	11 & 12	4970	4980
4980	12 & 13	4975	4985
4985	13 to 18*	4980	4990

\*Licensees should avoid using these channels in aggregations unless all other channels are blocked.

(3) 15 MHz bandwidth aggregation:

<b>Center Frequency (MHz)</b>	<b>Channel Nos. Employed</b>	<b>Lower Frequency (MHz)</b>	<b>Upper Frequency (MHz)</b>
4947.5	1 to 7*	4940	4955
4952.5	6 to 8	4945	4960
4957.5	7 to 9	4950	4965
4962.5	8 to 10	4955	4970
4967.5	9 to 11	4960	4975
4972.5	10 to 12	4965	4980
4977.5	11 to 13	4970	4985
4982.5	12 to 18*	4975	4990

\*Licensees should avoid using these channels in aggregations unless all other channels are blocked.

(4) 20 MHz bandwidth aggregation:



<b>Center Frequency (MHz)</b>	<b>Channel Nos. Employed</b>	<b>Lower Frequency (MHz)</b>	<b>Upper Frequency (MHz)</b>
4950	1 to 8*	4940	4960
4955	6 to 9	4945	4965
4960	7 to 10	4950	4970
4965	8 to 11	4955	4975
4970	9 to 12	4960	4980
4975	10 to 13	4965	4985
4980	11 to 18*	4970	4990

\*Licensees should avoid using these channels in aggregations unless all other channels are blocked.

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